IN THE CLAIMS

1.   (Previously Presented) A method of routing a message, conveyed in stream through a point-to-point connection to a load-balancing element, to one of a plurality of available processing systems each connected to the load-balancing element by separate point-to-point connections, comprising at the load-balancing element: extracting the message from the stream; detecting in the extracted message the presence of a destination identifier identifying one of the available processing systems; and where the presence of the destination identifier is detected, forwarding the message to the processing system identified thereby via the appropriate connection; otherwise detecting in the extracted message a message identifier for identifying related messages; searching a database of message identifiers for which no destination identifiers were detected, the database having information indicating to which one of the available processing systems each such message having no destination identifier was forwarded; determining a destination processing system for processing the message; inserting into the message an identifier identifying the determined destination processing system; and forwarding the message to the processing system via the appropriate connection.

2.   (Previously Presented) A method according to claim 1, the method further comprising maintaining the database of message identifiers for which no destination identifiers were detected along with the information indicating to which of the available processing systems such messages having no destination identifier were forwarded.

3.   (Previously Presented) A method according to claim 2, wherein determining a destination processing system for processing the message, if the presence of a destination identifier is not detected, comprises determining the destination processing system to be the available processing system to which a related message was sent if the detected message identifier is found in the database, and determining the destination processing system by a load analyzer if the detected message identifier is not found in the database.

4.   (Previously Presented) A method according to claim 1, further comprising removing entries in the database after a predetermined amount of time.

5.   (Previously Presented) A method according to claim 1, wherein the point-to-point connection is a transport control protocol (TCP) connection, and wherein the message is a session initiation protocol (SIP) message.

6.   (Previously Presented) A method according to claim 1, wherein the step of inserting further comprises inserting the destination identifier into an extension header of a SIP message.

7.   (Previously Presented) A load-balancing element for routing a message conveyed in a stream through a point-to-point connection to one of a plurality of available processing systems each connected to the load-balancing element by separate point-to-point connections, comprising at the load-balancing element: a message processor for extracting the message from the stream; a message analyzer for detecting in the received message the presence of a destination identifier identifying one of the available processing systems and the presence of a message identifier for identifying related messages; a database for storing details of message identifiers for which no destination identifier was detected along with information indicating to which of the available processing systems each such message having no destination identifier was forwarded; and a message forwarder for forwarding the message, via the appropriate connection, to the processing system identified by the destination identifier if the presence of a destination identifier is detected, and to a processing system to which a related message was forwarded if the presence of a destination identifier is not detected and the message identifier is contained in the database.

8.   (Previously Presented) A load-balancing element according to claim 7, further comprising, for when the presence of a destination identifier is not detected, a message processor for inserting into the message a destination identifier identifying the processing system to which the message is to be forwarded for processing.

9.   (Previously Presented) A load-balancing element according to claim 8, further comprising, for when the presence of a destination identifier is not detected and the message identifier is not contained in the database, a load analyzer for determining a destination processing system to which the message forwarder should forward the message for processing.

10.   (Previously Presented) A load-balancing element according to claim 7, further comprising, where a message is received without a destination identifier, means for searching the database for a related message identifier and for identifying to which processing system the message should be forwarded.

11.   (Previously Presented) A load-balancing element according to claim 7, adapted for use where each point-to-point connection is a transport control protocol (TCP) connection, and wherein the message is a session initiation protocol (SIP) message.

12.   (Previously Presented) A load-balancing element according to claim 7, wherein the message processor is adapted for inserting the destination identifier into an extension header of a SIP message.

13.   (Previously Presented) A session initiation protocol (SIP) network comprising elements according to claim 7.

14.   (Previously Presented) A session initiation protocol (SIP) network operating in accordance with the method of claim 1.